U.S. Department of Labor

Occupational Safety and Health Administration
Suite B-12
3939 West Ridge Road
Erie, PA 16506
(814) 833-5758

August 20, 2003

FCI, McKean
Route 59 & Big Shanty Road
Lewis Run, PA 16738

Steve Housler, Safety Manager:

An inspection of the UNICOR Factory disclosed the following potential hazards:

Personnel were potentially exposed to mechanical irritation of the skin and respiratory tract from the chemical components of micoreboard. These chemical components included but were not limited to man-made vitreous fiber and perlite. Man-made vitreous fiber is also known as slag wool, mineral wool, synthetic vitreous fiber, & man-made mineral fiber. Both the man-made vitreous fiber and the perlite are forms of glass like materials. Specifically, perlite is a form of volcanic glass. The glass like nature of these chemical ingreditents makes them very irritating to the skin, lungs, throat, nose, sinuses, and eyes.

Since no OSHA Standard applies and it is not considered appropriate at this time to invoke the *29 CFR 1960.8 (a) Agency responsibilities*, no citation will be issued for these hazards.

Enclosed are the results of air monitoring conducted by OSHA to evaluate worker exposures to airborne dust concentrations of the particulates described above. These results show that no workers exposure exceeded 10% of the relevant exposure limit. Even though no exposure limit was exceeded on the day of the sampling, I recommend that you take the following steps voluntarily to eliminate or further reduce your employees' exposure to the hazards described above:

Step #1: Eliminate all blowing and sweeping of the micoreboard dust. Shops vacs should be utilized to remove the dust from work surfaces (e.g. floor & machines) and workers' clothes. Ensure the shop vac is equipped with an internal filter bag to prevent the dust from being blown back into the work environment.

corrected

Step #2: Personnel should be provided long sleeved work coveralls that can be closed at the neck and wrist to minimize skin contact. These coveralls should be left in the UNICOR Factory before personnel return to their living quarters and laundered separately from other clothing. In addition, personnel should be equipped with tight fitting goggles to prevent eye irritation. Caps should also be provided to keep the dust out of the worker's hair.

corrected

Step #3: Equip personnel with an approved NIOSH respirator. Personnel must be trained in the proper use of the respirator. It is highly recommended that the training extend beyond the requirements noted in the *29 CFR 1910.134 Appendix D.* The manufactures literature that accompanies the respirators can be utilized as a training tool.

Step #4: At the panel saw, dust was liberated into the work environment when scrap pieces of board were thrown and dropped into the dumpster. Equip the dumpster with a tight fitting lid to capture the dust. The side of the dumpster lid can be equipped with a rubber flapped opening through which personnel can insert the scrap pieces of board.

Step #5: An abrasive pad was utilized as a sanding device after the micoreboard was processed at the router and shaper. Look into the feasibility of replacing the abrasive pad with a hand-held sander that is equipped with a high velocity low volume ventilation system. These sanders can be connected to the facility's ventilation system and/or a specialized shop vac.

Step #6: Train personnel on the information contained in the micoreboard's MSDS. The training should emphasize the following sections of the MSDS: Section II Ingredients, Section V Health Hazard Data, Section VIII Special Protection Information, and Section IX Special Precautions.

Step #7: Ensure the personnel who work with the micoreboard adhere to strict personnel hygiene before eating, drinking, smoking, and/or leaving the factory. Personnel need to ensure their hands and skin a thoroughly washed. In addition, the worker should ensure their hair is free of micoreboard dust.

If you have any questions, please feel free to contact me at (814) 833-5758.

Sincerely,

John H. Stranahan
Area Director

Attachments (2):
1. Air Sampling Results
2. Example of a ventilated orbital sander

JHS/bmc

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Establishment Name: Federal Correctional Institution, McKean, Lewis Run, PA/UNICOR Factory						
Job Title and/or Operation(s)	Contaminant(s) Sampled	Exposure(s) mg/m³ [X] ppm [ ] noise [ ]	PEL mg/m³ [X] ppm [ ] noise [ ]	%PEL (Exposure divided by PEL X 100 = ?)	Date Sampled	Comments
Saw Operator	Respirable Silica	None detected	Not Determined	Not Applicable	6/17/03	Work practices produce the most dust exposure. Controls cut of product
Saw Operator	Total Particulate	0.54	15.00	3.6%	6/17/03	Good respirator use
Feeder Operator	Respirable Silica	None detected	Not Determined	Not Applicable	6/17/03	Good respirator use
Feeder Operator	Total Particulate	1.1	15.00	7.6%	6/17/03	Good respirator use
Area Sample	Synthetic Vitreous Fiber (SVF)	Fibers/CC None Detected	3 Fibers/CC REL (NIOSH) 15.00*	Not Applicable	6/17/03	Area Sample Above Panel Saw. Four Samples Taken
Bulk Samples	SVF, Silica	30% SVF 20% Silica	Not Applicable	Not Applicable	6/17/03 6/18/03	Settled Dust at Processes
Router and Shaper Operation	Silica	None Detected	Not Determined	Not Applicable	6/18/03	Lower Band of Respirator was not attached.
Router and Shaper Operation	Total Particulate	1.50	15.00	10.3%	6/18/03	Good respirator use
Area Sample	Synthetic Vitreous Fibers	None Detected	3 Fibers/CC REL (NIOSH) 15.00*	Not Applicable	6/18/03	Sample taken above router. Two Samples Taken

PEL = Permissible Exposure Limit, AL = Action Level (usually half of the PEL), TWA = Time Weighted Average (an 8hr exposure); STEL = Short Term Exposure Limit (15 Min); C = Ceiling (value that can never be exceeded)

* **Regulated as a nuisance dust, REL (Recommended Exposure Limit)**